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SOLID ELECTROLYTE TYPE FUEL CELL

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ABSTRACT

PURPOSE: To improve the gas sealing property of the inner manifold part, and to secure an optimum contact for electric conduction by forming a cell three- layer membrane only at the central part of a separator, carrying out the gas sealing at the periphery of the three-layer membrane with seal plates, and separating the inner manifold part from the cell three-layer membrane spatially.

CONSTITUTION: Numerous projections are formed on the surface of a separator 9, manifolds 17 to deliver or exhaust the air and the fuel are provided at the outer periphery of them, and cell three-layer membrane 15 which consist of a fuel electrode, a solid electrolyte, and an air electrode are formed on the surface of porous conductive membranous bases 18. The cell three-layer membranes 15 are formed only at the center of the separator 9, and a distance is placed from the inner manifolds 17. And a cell main body made by forming the cell three-layer membrane 15 on the base 18, a seal plate 19 connected to the outer periphery of the cell main body maintaining gas tightness, and a separator 9 are laminated each other, so as to seal between the cell three-layer membranes 15, and the seal plates 19 and the bases 18. Consequently, the gas sealing property at the inner manifold 17 part is improved, and a good contact for electric conduction can be obtained.